

REMARKS

Status of the Claims

Claims 1 and 9-38 are now pending in the present application, Claims 2-8 and 39-55 having been withdrawn from consideration due to an election made in response to a restriction requirement. Claim 1 has been amended to distinguish over the cited art; and Claims 10, 13, and 18 have been amended to more clearly define the invention. Claims 9, 11, 12, 14-17, and 21-38 have been allowed.

Claims Rejected under 35 U.S.C. § 112

The Examiner has rejected Claims 10, 13, and 18-20 under 35 §. U.S.C. § 112, second paragraph, asserting that the terms “enlarged,” “reduced,” and “configured” are indefinite. The Examiner further notes that “the sensor” recited in Claim 18 lacks antecedent basis. Applicants have amended Claims 10, 13, and 18 to address these concerns, thus obviating the rejection.

Claim 10 has been amended to clarify that the base of the vane extends laterally to a greater extent than an upper surface of the vane. Claim 13 has been amended to recite that the vanes are substantially evenly spaced so as to present a balanced load. Claim 18 has been amended to depend from Claim 17, which provides antecedent basis for the sensor and the pump recited in Claim 18.

Because the amendments to these claims are fully responsive to the rejection, the rejection of Claims 10, 13, and 18-20 under 35 §. U.S.C. § 112 (second paragraph) should be withdrawn.

Claims Rejected under 35 U.S.C. § 102(b) and § 102(e)

Claim 1 has been rejected under 35 §. U.S.C. § 102(e) as being anticipated by Hayes (U.S. Patent No. 5,925,960). The Examiner further rejects Claim 1 under 35 §. U.S.C. § 102(b) as being anticipated by Zaniewski (U.S. Patent No. 5,669,811). Claim 1 recites an impellor with a ratio of vane height to base plate diameter in the range of about 0.01 to about 0.2 mm. The Examiner asserts that the cited art discloses similar impellers. Applicants have amended Claim 1 to distinguish over the cited art.

As amended, Claim 1 recites that the vanes curve between a first end that is disposed adjacent to the outer edge of the base plate, and a second end that is disposed inwardly, substantially closer to a center of the base plate. FIGURE 10 and the related text of applicants' specification clearly show such curved vanes. Vanes 26 disclosed by Zaniewski are substantially elongate and do not curve, and while the vanes disclosed by Hayes do angle from the edge toward the center of the base plate, Hayes' vanes *are also not* curved. Neither reference teaches or suggests replacing the generally

1 straight vanes of Hayes (or Zaniewski) with curved vanes, and there is no evidence that doing so
2 would solve a problem recognized in the art. Accordingly, the rejection of Claim 1 under
3 35 U.S.C. § 102 as being anticipated by either Hayes or Zaniewski should be withdrawn.

4 Rejection of Claim 1 under 35 U.S.C. § 103

5 The Examiner has in the alternative rejected Claim 1 under 35 U.S.C. § 103 as being obvious
6 over either (or both) Hayes or Zaniewski. However, the amendment to Claim 1 further obviates this
7 alternative rejection, because the cited art does not teach or suggest curved vanes like those recited in
8 the claim.

9 In view of the preceding remarks, it should be evident that this application is in condition for
10 allowance and should be passed to issue without delay. Should any further questions remain, the
11 Examiner is invited to telephone applicant's attorney at the number listed below.

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13 Respectfully submitted,

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20 MAILING CERTIFICATE:

21 I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed
envelope as first class mail with postage thereon fully prepaid addressed to: Commissioner for Patents,
22 Alexandria, VA 22313-1450, on August 24, 2004.

23 Date: August 24, 2004